

Claims

1. A battery terminal(1), in particular for an automobile battery (2) having a voltage higher than, for example 12 volts, comprising a terminal
5 connector (4) connected to a cable, which matingly engages a battery pole (5) in an operational position wherein the terminal connector (4) is substantially cup-shaped or bell-shaped and encompasses the battery pole (5) from above and from the side, the terminal connector (4) at an exterior portion thereof is at least at a surface thereof enclosed by a housing (6) comprising an
10 insulating material, the housing (6) having a cross-section with a narrowing interior opening, in a direction opposite the connecting direction of the terminal connector (4), the terminal connector (4) having an expanding cross-section in reference to the interior side of the housing (6) in the connection direction, the housing (6) is movable in the axial direction relative to the
15 terminal connector (4), the terminal connector (4) axially extends beyond the housing (6) in disconnected positions, in the operational position, an exterior wall of the terminal connector (4) is abutted by an interior wall of the housing and the terminal connector (4) is thus radially compressed, and the interior side is compressed towards the exterior side of the battery pole (5).

20
2. The battery terminal of claim 1, wherein a diagonal surface of the interior opening of the housing in a lower section is substantially congruent to a diagonal surface (7) in an upper section of the exterior wall of the terminal connector (4), the diagonal surface (7) of the interior wall of the
25 housing (6) abuts the diagonal surface of at the exterior wall of the terminal connector (4) in the disconnected position.

3. The battery terminal, of claims 1 or 2, wherein a substantially annular shaped element (9) is provided in the housing (6) within the opening
30 above the area narrowing upwardly away from the entry into the opening

and is connected to an interior side of the housing by a plurality of bars (10), the substantially annular-shaped element (9) having exterior dimensions identical to or smaller than interior dimensions of the non-deformed terminal connector (4) and which, in the connected or operational position of the terminal connector (4) limits or prevents an interior compression of the terminal connector (4) in its interior in the area of said substantially annular-shaped element (9), and which during axial adjustment of the housing (6) in the disconnected position enables the radial expansion of the terminal connector (4) into its original position.

10

4. The battery terminal according to one of claims 1 through 3, wherein the terminal connector (4), at a lower edge, comprises at least two axially extending slits (11), which divide an exterior wall of the terminal connector (4) at least sectionally.

15

5. The battery terminal according to one of claims 1 through 4, wherein axially extending slits (11) are provided at the terminal connector (4) in the area of the substantially annular element (9).

20

6. The battery terminal according to one of claims 1 through 5, further comprising a pivotally supported excentric cam (13) which engages the housing (6), axially pivoting the housing (6) beyond an idle point displacing the terminal connector (4) to a fixed clamped contacting position.

25

7. The battery terminal according to one of claims 1 through 6, wherein the excentric cam (13) adjusts the contacting terminal (4) and maintains its contact position.

30

8. The battery terminal according to one of claims 1 through 7, wherein the excentric cam (13) comprises an operating lever (14), which pivots around

an axis (15) extending laterally to a displacement direction of the housing (6), the operating lever (14) two pins (16) are provided eccentrically to the rotational axis (15) of the operating lever (14), engaging an oblong hole (17) of the housing (6).

5

9. The battery terminal according to one of claims 1 through 8, wherein the housing (6) encompassing the terminal connector (4) in the operational position laterally encompasses the terminal connector (4) beyond its cable connection (3).

10

10. The battery terminal according to one of claims 1 through 9, wherein the battery pole (5) comprises at least one indentation (18) preferably at least one circumferential groove or circular groove, and wherein the interior of the terminal connector (4) comprises at least one protrusion (19), which matingly engages the at least one indentation (18) in the clamping position to form a form-fitting connection in the axial direction.

15

11. The battery terminal according to one of claims 1 through 10, wherein an upper end of the battery pole (5) comprises a cap (20) made from an insulating material, which separates the area of the terminal connector (4) above the substantially annular shaped element from the battery pole (5).

20

12. The battery terminal according to one of claims 1 through 11, wherein the battery pole (5) is encompassed by a radially encircling, protective wall (21) made from an insulating material, which is radially distanced from the housing (6) in the operational position and fits into a radial distance between the protective wall (21) and the battery pole (5) in the operational position.

25

13. The battery terminal according to claim 12, wherein the protective wall (21) is axially dimensioned at least to match the axial extension of the battery pole (5).